

REMARKS/ARGUMENTS

I. Amendment to the Claims

Claim 8 has been cancelled without prejudice. Applicants reserve the right to pursue continuing subject matter in a continuing application. New claim 9 has been added. Support for the new claim can be found in the Specification on page 2, lns. 8-17. No new matter has been added. Upon entry of this Amendment, Claims 1-7 and 9 will be pending.

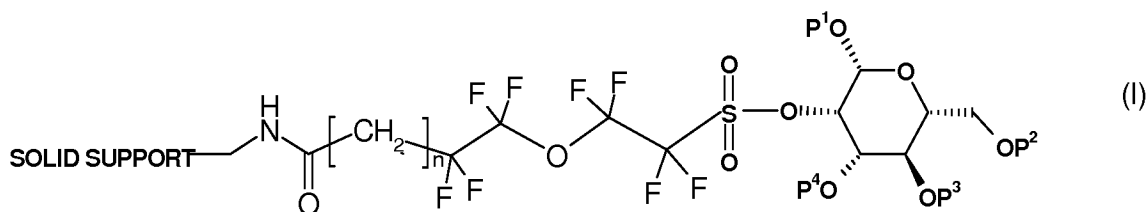
II. Rejection under 35 U.S.C. § 112

Claim 8 is rejected under 35 USC 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection has been rendered moot by the present cancellation of Claim 8. Applicants respectfully request this rejection be withdrawn.

III. Rejection under 35 U.S.C. § 103(a)

Claims 1-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Luthra (WO03/002157)(“Luthra”) in view of Holmes (WO 02/055026)(“Holmes”). Applicants respectfully disagree and traverse the rejection.

Applicants’ claimed invention is based on novel intermediates for the solid phase production of [^{18}F]FDG (see Specification, page 1, lns. 4-8). Specifically Applicants’ claimed invention is directed to a compound of Formula (I):



wherein P1, P2, P3, and P4 are each independently hydrogen or a protecting group; and n is an integer of from 2 to 20. A compound of Formula (I) is a useful intermediate for the synthesis of [^{18}F]FDG. Applicants’ claimed invention is also directed to a method of use

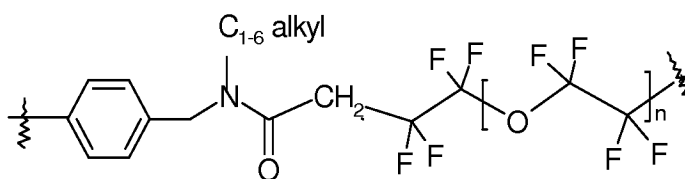
of a compound of Formula (I) to produce [^{18}F]FDG; a radiopharmaceutical kit for the preparation of [^{18}F]FDG including a compound of Formula (I) and a cartridge for a radiopharmaceutical kit for the preparation of [^{18}F]FDG including a compound of Formula (I).

As set forth in Applicants' Specification, the intermediates of Formula (I) are a particular class of intermediate for the production of [^{18}F]FDG falling within the scope of Luthra (Specification, page 1, lns. 24-26). However, also as set forth in Applicants' claimed invention, the presently claimed compound of Formula (I) has advantages including that it can be synthesized in good yields and give surprisingly good yields in the radiofluorination reaction. (Specification, page 1, lns. 26-28).

Luthra provides a very broad teaching of a resin-bound precursor of formula (I):

SOLID SUPPORT-LINKER-X-TRACER.

The Linker of Luthra's compound of Formula (I) may be any suitable organic group which serves to space the reactive site sufficiently from the solid support structure so as to maximize reactivity (Luthra, page 4, last sentence through page 5, ln. 2). Of the specific examples of LINKER provided in Luthra, the one "closest" in structure to Applicants' claimed invention is:



The LINKER of Luthra differs from Applicants' claimed compound of Formula (I) in that it contains a benzyl group that attaches to the Solid Support; the nitrogen of the amide is substituted with a C₁₋₆alkyl group; and there is only a single methylene group between the amide moiety and an the fluorinated portion of the LINKER. Luthra does not teach or suggest Applicants' claimed compound of Formula (I).

Furthermore, Luthra does not teach or suggest the advantages provided by Applicants' claimed compound of Formula (I) as described above. As illustrated in Table 3

on page 37 of Applicants' Specification, compounds of Applicants' invention provide the advantage of high radiochemical yield of desired FDG. Upon a reading of Luthra as a whole, one of skill in the art would not recognize that Applicants' claimed compound of Formula (I) would provide such advantageous results. The teachings of Holmes is also broad such that one of skill in the art would not read Holmes and arrive at Applicants' claimed invention. Applicants' claimed invention is not obvious in view of the cited references. Applicants respectfully request this rejection be withdrawn.

IV. Conclusion

In view of the remarks herein, Applicants believe that each ground for rejection or objection made in the instant application has been successfully overcome or obviated, and that all the pending claims are in condition for allowance. Withdrawal of the Examiner's rejections and objections, and allowance of the current application are respectfully requested.

The Examiner is invited to telephone the undersigned in order to resolve any issues that might arise and to promote the efficient examination of the current application.

The Commissioner is hereby authorized to charge any additional fees under 37 CFR §1.16(j) or 37 CFR 1.136(a) which may be required, or credit any overpayment, to Deposit Account No. 502-665 in the name of GE Healthcare, Inc.

Respectfully submitted,

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